IN THE UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF NEW YORK

| KEWAZINGA CORP., |)) |
|------------------|--|
| Plaintiff, | Civil Action No. 1:20-cv-01106-LGS |
| VS. |))) JOINT CLAIM CONSTRUCTION CHART |
| GOOGLE LLC, |) |
| Defendant. | ,)) |

Pursuant to the Court's Scheduling Order in this case (D.I. 32) and Local Patent Rule 4-5(d) of the Eastern District of Texas ("Texas Rule 4-5(d)"), Plaintiff Kewazinga Corp. ("Kewazinga") and Defendant Google LLC ("Google") hereby submit this Joint Claim Construction Chart ("Joint Chart"). The parties have organized the Joint Chart into three sections: (1) disputed term "array of cameras"; (2) disputed term "mosaicing"; and (3) agreed-upon terms. Some of the asserted claims include both disputed terms, "array of cameras" and "mosaicing." Thus, for convenience, those claims have been reproduced in the sections for each term. Additionally, the parties have agreed that certain claim terms should be construed in accordance with the Court's construction of the disputed term "mosaicing," as identified in the "Agreed Proposed Constructions" section.

A. <u>Disputed Claims (Texas Rule 4-5(d)(1))</u>

| Disputed Phrases and Claim Language | Kewazinga's Proposed Construction | Google's Proposed Construction | Court's Construction |
|--|--|--|-------------------------|
| "array of cameras" (U.S. Patent No. 6,535,226 ("'226 patent"), claims 55, 119; U.S. Patent No. 6,522,325 ("'325 patent"), claims 1, 5, 6, 10, 14, 15, 29; reproduced in full below) | No construction is necessary. However, if the Court rules that one is necessary, Kewazinga | a set of multiple cameras, each fixed in relation to each other | |
| '226 patent, claims 55, 119: 54¹. A method of providing users with views of a remote environment, the method comprising: receiving electronic images of the environment captured from an <i>array of cameras</i>, the array including at least a first series of cameras defining a first path through the environment, the first series of cameras having progressively different perspectives of the environment along the first | proposes the following construction: a camera configuration wherein the configuration can be created over | | |
| path; receiving a first input from a first user interface device associated with a first user, the first input indicating movement through the environment along the first path; | time by moving cameras | | |
| providing to the first user images from the first series of cameras in sequence along the first path, thereby simulating movement by the first user through the environment along the first path. | | | |

¹ Unasserted dependent claim 54 reproduced for context.

| Disputed Phrases and Claim Language | Kewazinga's Proposed Construction | Google's Proposed Construction | Court's Construction |
|---|---|--------------------------------------|-------------------------|
| 55. The method of claim 54 wherein the receiving images including receiving images from a second series of cameras in the array, the second series defining a second path through the environment, the second series of cameras having progressively different perspectives on the environment along the second path and wherein the method further includes: | | | |
| receiving a second input from a second user interface device associated with a second user, the second input indicating movement through the environment along the second path; | | | |
| providing to the second user images from the second series of cameras in sequence along the second path, thereby simulating movement by the second user through the environment along the second path, independently of simulating movement by the first user through the environment. | | | |
| 119. A telepresence system for providing multiple users with simulated independent movement through an environment, the system comprising: | | | |
| an <i>array of cameras</i> including a series of cameras, each camera in the series having an associated view of the environment from a progressively different point perspective and an associated camera output representing the associated view; | | | |
| an electronic storage device for sharing outputs among multiple users; and at least one processing element coupled to the electronic storage device, the processing element configured to electronically store outputs from cameras in the series and an indication of which camera each output is associated with on the electronic storage device, thereby allowing | | | |

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|--|---|--------------------------------------|-------------------------|
| subsequent simultaneous retrieval of the stored outputs by multiple users; and | | | |
| the processing element also configured to sequentially retrieve for multiple users from the electronic storage device.stored [sic] outputs from cameras in the series, thereby simulating progressive movement along the different point perspectives of the views associated with the retrieved outputs. | | | |
| '325 patent, claims 1, 5, 6, 10, 14, 15, 29: | | | |
| 1. A telepresence system for providing a first user with a first display of an environment and a second user with a second display of the environment, the system comprising: | | | |
| an <i>array of cameras</i> , each camera having an associated view of the environment and an associated camera output representing the associated view, the array including at least one camera path wherein each path is defined by a series of cameras having progressively different perspectives of the environment; | | | |
| a first user interface device associated with the first user having first user inputs associated with movement along a first path in the array; | | | |
| a second user interface device associated with the second user having second user inputs associated with movement along a second path in the array; | | | |
| at least one processing element coupled to the user interface devices for receiving user inputs, the processing element configured to: | | | |

| Disputed Phrases and Claim Language | Kewazinga's Proposed Construction | Google's Proposed Construction | Court's Construction |
|---|---|--------------------------------------|-------------------------|
| interpret received first user inputs and select outputs of cameras in the first path, mix the outputs of cameras in the first path in accordance with the received first user inputs by sequentially mosaicing the selected outputs of cameras in the first path and | | | |
| interpret received second inputs and select outputs of cameras in the second path independently of the first inputs, mix the outputs of cameras in the second path in accordance with the received second user inputs by sequentially mosaicing the selected outputs of cameras in the second path, thereby allowing the first user and second user to navigate simultaneously and independently through the array. | | | |
| 5. A system for remote seamless viewing of an environment from an <i>array of cameras</i> , each having an output representing an image of the environment, the device comprising: | | | |
| an interface device having inputs for selecting a path through at least a portion of the array from which to view the environment, the path including a sequence of cameras, each camera in the sequence having a different point perspective and a field of view that overlaps that of an adjacent cameras; and | | | |
| a display device for sequentially displaying the image from each camera in the sequence by mosaicing the image of a current camera in the sequence to the image of a next camera in the sequence, thereby providing the user a seamless view of the environment. | | | |
| 6. A method for seamless viewing of an environment, the method comprising: | | | |

| Disputed Phrases and Claim Language | Kewazinga's Proposed Construction | Google's Proposed Construction | Court's Construction |
|---|---|--------------------------------------|-------------------------|
| receiving electronically a first image from an <i>array of cameras</i> having progressively different perspectives of the environment, the first image having a first field of view; | | | |
| receiving electronically a second image from the array, the second image having a second field of the view that overlaps the first field of view; | | | |
| receiving electronically a third image from the array, the third image having a third field of view that overlaps the second field of view; | | | |
| mosaicing the first image with the second image and then mosaicing the second image with the third image; and | | | |
| displaying the first, second, third and mosaic images in sequence to obtain a seamless view through the environment. | | | |
| 10. A telepresence system for providing a first user with a first display of an environment and a second user with a second display of the environment, the system comprising: | | | |
| an <i>array of cameras</i> , each camera having an associated view of the environment and an associated camera output representing the associated view, the array including at least one camera path, wherein each path is defined by a series of cameras having progressively different perspectives of the environment; | | | |
| a first interface user device associated with the first user having first user inputs associated with movement along a first path in the array; | | | |
| a second user interface device associated with the second user having second user inputs associated with movement along a second path in the array; | | | |

| Disputed Phrases and Claim Language | Kewazinga's Proposed Construction | Google's Proposed Construction | Court's Construction |
|--|---|--------------------------------------|-------------------------|
| at least one processing element coupled to the user interface devices for receiving user inputs, the processing element configured to: | | | |
| interpret received first user inputs and select outputs of cameras in the first path, mix the outputs of cameras in the first path in accordance with the received first user inputs by sequentially tweening the selected outputs of cameras in the first path, and | | | |
| interpret received second inputs and select outputs of cameras in the second path independently of the first inputs, mix the outputs of cameras in the second path in accordance with the received second user inputs by sequentially tweening the selected outputs of cameras in the second path, thereby allowing the first user and second user to navigate simultaneously and independently through the array. | | | |
| 14. A system for remote seamless viewing of an environment from an <i>array of cameras</i> , each having an output representing an image of the environment, the device comprising: | | | |
| an interface device having inputs for selecting a path through at least a portion of the array from which to view the environment, the path including a sequence of cameras, each camera in the sequence having a different point perspective and a field of view that overlaps that of an adjacent cameras; and | | | |
| a display device for sequentially displaying the image from each camera in the sequence by tweening the image of a current camera in the sequence to the image of a next camera in the sequence, thereby providing the user a seamless view of the environment. | | | |

| Disputed Phrases and Claim Language | Kewazinga's Proposed Construction | Google's Proposed Construction | Court's Construction |
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| 15. A method for seamless viewing of an environment, the method comprising: | | | |
| receiving electronically a first image from an <i>array of cameras</i> having progressively different perspectives of the environment, the first image having a first field of view; | | | |
| receiving electronically a second image from the array, the second image having a second field of view that overlaps the first field of view; | | | |
| receiving electronically a third image from the array, the third image having a third field of view that overlaps the second field of view; | | | |
| tweening the first image with the second image to obtain a first tweened image and then tweening the second image with the third image to obtain a second tweened image; and | | | |
| displaying the first image, first tweened image, second image, second tweened image, and third image in sequence to obtain a seamless view through the environment. | | | |
| 27 ² . A method of providing a user with views of a remote environment, the method comprising: | | | |
| receiving electronic images of the environment from a first <i>array of</i> cameras; | | | |
| removing the first array from the environment; | | | |

 $^{^{2}}$ Unasserted dependent claim 27 reproduced for context.

| Disputed Phrases and Claim Language | Kewazinga's Proposed Construction | Google's Proposed Construction | Court's Construction |
|--|---|--------------------------------------|-------------------------|
| receiving electronic images of the environment from a second <i>array of cameras</i> , wherein the first and second arrays capture images from different places in the environment; | | | |
| storing images of the environment from at least the first array for retrieval; | | | |
| receiving a first input from a first user interface device associated with a first user, the first input indicating movement along a first path, the first path including a first image from the first array and a second image from the second array; | | | |
| sequentially providing the first user with the first image, and the second image, thereby simulating movement along the first path forward or backward in the environment. | | | |
| 29. The method of claim 27 further comprising mixing the first image with the second image to produce a mixed image and sequentially providing the user with the first image, the mixed image and the second image. | | | |

| Disputed Phrases and Claim Language | Kewazinga's Proposed Construction | Google's Proposed Construction | Court's Construction | | | | | |
|--|--|---|---|--|--|--|--|---------|
| "mosaicing" ('325 patent, claims 1, 5, 6; reproduced in full below) "325 Patent, claims 1, 5, 6: 1. A telepresence system for providing a first user with a first display of an environment and a second user with a second display of the environment, the system comprising: | creating imagery assembled from a plurality of images, or portions thereof, including an alignment process and a composition process | assembled from a plurality of images, or portions thereof, including an alignment process and a composition | assembled from a plurality of images, or portions thereof, including an alignment process and a composition | assembled from a plurality of images, a plurality of or portions thereof, including an alignment process and a composition assembled from a plurality of camera outputs, or portions thereof, and a composition including an | | | | |
| an array of cameras, each camera having an associated view of the environment and an associated camera output representing the associated view, the array including at least one camera path wherein each path is defined by a series of cameras having progressively different perspectives of the environment; a first user interface device associated with the first user having first user | | composition process to achieve a seamless combination of the camera | | | | | | |
| inputs associated with movement along a first path in the array; a second user interface device associated with the second user having second user inputs associated with movement along a second path in the array; | | | | | | | | outputs |
| at least one processing element coupled to the user interface devices for receiving user inputs, the processing element configured to: | | | | | | | | |
| interpret received first user inputs and select outputs of cameras in the first path, mix the outputs of cameras in the first path in accordance with the received first user inputs by sequentially <i>mosaicing</i> the selected outputs of cameras in the first path and | | | | | | | | |
| interpret received second inputs and select outputs of cameras in the second path independently of the first inputs, mix the outputs of cameras | | | | | | | | |

| Disputed Phrases and Claim Language | Kewazinga's Proposed Construction | Google's Proposed Construction | Court's Construction |
|--|---|--------------------------------------|-------------------------|
| in the second path in accordance with the received second user inputs by sequentially <i>mosaicing</i> the selected outputs of cameras in the second path, thereby allowing the first user and second user to navigate simultaneously and independently through the array. | | | |
| 5. A system for remote seamless viewing of an environment from an array of cameras, each having an output representing an image of the environment, the device comprising: | | | |
| an interface device having inputs for selecting a path through at least a portion of the array from which to view the environment, the path including a sequence of cameras, each camera in the sequence having a different point perspective and a field of view that overlaps that of an adjacent cameras; and | | | |
| a display device for sequentially displaying the image from each camera in the sequence by <i>mosaicing</i> the image of a current camera in the sequence to the image of a next camera in the sequence, thereby providing the user a seamless view of the environment. | | | |
| 6. A method for seamless viewing of an environment, the method comprising: | | | |
| receiving electronically a first image from an array of cameras having progressively different perspectives of the environment, the first image having a first field of view; | | | |
| receiving electronically a second image from the array, the second image having a second field of the view that overlaps the first field of view; | | | |

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| Disputed Phrases and Claim Language | Kewazinga's Proposed Construction | Google's Proposed Construction | Court's Construction |
|---|---|--------------------------------------|-------------------------|
| receiving electronically a third image from the array, the third image having a third field of view that overlaps the second field of view; | | | |
| <i>mosaicing</i> the first image with the second image and then <i>mosaicing</i> the second image with the third image; and | | | |
| displaying the first, second, third and mosaic images in sequence to obtain a seamless view through the environment. | | | |

B. Agreed Proposed Constructions (Texas Rule 4-5(d)(2))

The table below identifies the constructions on which the parties have agreed.

| Terms and Phrases | Claims (including unasserted independent claims on which asserted claims depend) | Kewazinga's Proposed Construction | Google's Proposed Construction | Court's Construction |
|---|--|---|--------------------------------------|--|
| [first] [second] view of the environment | U.S. Patent No. 9,055,234 ("'234 patent"), claims 1, 13, and 14 | [AGREED] | [AGREED] | [first] [second] view of multiple locations through a remote environment |
| tweening | '325 patent, claims 10, 14, 15; '234 patent, claims 7, 19, 20 | [AGREED] | [AGREED] | generating synthetic imagery from acquired imagery, and utilizing that synthetic imagery between the acquired imagery, in order to show movement and transition between the acquired imagery |
| tweened imagery | '234 patent, claims 6, 19 | [AGREED] | [AGREED] | This term should be construed in accordance with the agreed-upon construction of the term "tweening." |
| tweened image | '325 patent, claim 15 | [AGREED] | [AGREED] | This term should be construed in accordance with the agreed-upon construction of the term "tweening." |
| tweened | '234 patent, claim 6 | [AGREED] | [AGREED] | This term should be construed in accordance with the agreed-upon construction of the term "tweening." |

| Terms and Phrases | Claims (including unasserted independent claims on which asserted claims depend) | Kewazinga's Proposed Construction | Google's Proposed Construction | Court's Construction |
|--|--|---|--------------------------------------|---|
| tweening the selected outputs of cameras in the [first] [second] path | '325 patent, claim 10 | [AGREED] | [AGREED] | This term should be construed in accordance with the agreed-upon construction of the term "tweening." |
| tweening the image of a current camera in the sequence to the image of a next camera in the sequence | '325 patent, claim 14 | [AGREED] | [AGREED] | This term should be construed in accordance with the agreed-upon construction of the term "tweening." |
| cause imagery of two or more different perspectives along the first view to be tweened | '234 patent, claim 6 | [AGREED] | [AGREED] | This term should be construed in accordance with the agreed-upon construction of the term "tweening." |
| tweening imagery of two or more different perspectives along the first view | '234 patent, claim 19 | [AGREED] | [AGREED] | This term should be construed in accordance with the agreed-upon construction of the term "tweening." |

| Terms and Phrases | Claims (including unasserted independent claims on which asserted claims depend) | Kewazinga's Proposed Construction | Google's Proposed Construction | Court's Construction |
|---|--|---|--------------------------------------|--|
| tweening the first image with the second image to obtain a first tweened image and then tweening the second image with the third image to obtain a second tweened image | '325 patent, claim 15 | [AGREED] | [AGREED] | This term should be construed in accordance with the agreed-upon construction of the term "tweening." |
| mosaic imagery | '234 patent, claims 1, 3, 13, 16 | [AGREED] | [AGREED] | This term should be construed in accordance with the construction of the term "mosaicing" that is adopted by the Court. The parties dispute the construction of "mosaicing" and have provided their proposals above. |
| mosaic images | '325 patent, claim 6 | [AGREED] | [AGREED] | This term should be construed in accordance with the construction of the term "mosaicing" that is adopted by the Court. The parties dispute the construction of "mosaicing" and have provided their proposals above. |
| generate mosaic imagery | '234 patent, claim 1 | [AGREED] | [AGREED] | This term should be construed in accordance with the construction of the term "mosaicing" that is adopted by the Court. The parties dispute the construction of "mosaicing" and have provided their proposals above. |

| Terms and Phrases | Claims (including unasserted independent claims on which asserted claims depend) | Kewazinga's Proposed Construction | Google's Proposed Construction | Court's Construction |
|---|--|---|--------------------------------------|--|
| mosaic imagery along the [first] [second] view | '234 patent, claim 1 | [AGREED] | [AGREED] | This term should be construed in accordance with the construction of the term "mosaicing" that is adopted by the Court. The parties dispute the construction of "mosaicing" and have provided their proposals above. |
| mosaic imagery of progressively different locations along the [first] [second] view | '234 patent, claim 13 | [AGREED] | [AGREED] | This term should be construed in accordance with the construction of the term "mosaicing" that is adopted by the Court. The parties dispute the construction of "mosaicing" and have provided their proposals above. |
| mosaicing the selected outputs of cameras in the [first] [second] path | '325 patent, claim 1 | [AGREED] | [AGREED] | This term should be construed in accordance with the construction of the term "mosaicing" that is adopted by the Court. The parties dispute the construction of "mosaicing" and have provided their proposals above. |
| sequentially mosaicing the selected outputs of cameras in the [first] [second] path | '325 patent, claim 1 | [AGREED] | [AGREED] | This term should be construed in accordance with the construction of the term "mosaicing" that is adopted by the Court. The parties dispute the construction of "mosaicing" and have provided their proposals above. |
| mosaicing the image of a current camera in the sequence to the image of a next camera in the sequence | '325 patent, claim 5 | [AGREED] | [AGREED] | This term should be construed in accordance with the construction of the term "mosaicing" that is adopted by the Court. The parties dispute the construction of "mosaicing" and have provided their proposals above. |

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| Terms and Phrases | Claims (including unasserted independent claims on which asserted claims depend) | Kewazinga's Proposed Construction | Google's Proposed Construction | Court's Construction |
|--|--|---|--------------------------------------|--|
| mosaicing the first image with the second image and then mosaicing the second image with the third image | '325 patent, claim 6 | [AGREED] | [AGREED] | This term should be construed in accordance with the construction of the term "mosaicing" that is adopted by the Court. The parties dispute the construction of "mosaicing" and have provided their proposals above. |

Dated: February 2, 2021

Respectfully submitted,

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PROOF OF SERVICE

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